ADEQ Arizona Department of Environmental Quality

Initial Distribution System Evaluation (IDSE)
System Specific Study Plan (SSS) Using
Existing Monitoring Results
Stage 2 Disinfectants and Disinfection Byproducts Rule

I. GENERAL INFORMATION

A. System Information*

PWS ID#: AZ04_____
PWS Name: _____
Street Address: _____
City: _____
State: _____
Zip: _____

Population Served: _____

Source Water Type: ___Ground ___Surface/GUDI
System Type: ___CWS ___NTNCWS
Combined Distribution System: ___Wholesale ___Consecutive ___Neither

B. Date Submitted*

_____

C. PWS Operations

Residual Disinfectant Type: ___Chlorine ___Chloramines ___Other_____
Number of Disinfected Sources: _____Surface _____GUDI _____Ground _____Purchased

D. Contact Person*

Name: _____
Title: _____
Phone Number: _____ Fax Number (if applicable): _____
Email Address (if applicable): _____

II. SSS REQUIREMENTS*

A. Minimum Number of Monitoring Locations _____

B. Minimum Number of Required Samples: _____TTHM _____HAA5

C. IDSE Schedule: ___Schedule 1 ___Schedule 2 ___Schedule 3 ___Schedule 4

III. PEAK HISTORICAL MONTH

A. Peak Historical Month* _____

B. If Multiple Sources, Source Used to Determine Peak Historical Month
(write "N/A" if only one source in your system)

_____

C. Peak Historical Month Based On (Check as many as needed)

___High TTHM ___High HAA5 ___Warmest water temperature

If you used other information to select your peak historical month, explain here:
(attach additional sheets if needed)

_____
_____
_____

IV. PREVIOUSLY COLLECTED MONITORING RESULTS*

A. Where were your TTHM and HAA5 samples analyzed?

___In-House

Is your in-house laboratory certified? ___Yes ___No

___Certified Laboratory

Name of certified laboratory: _____

Certified Laboratory Number: _____

B. What method(s) was used to analyze your TTHM and HAA5 samples?

TTHM	HAA5
___EPA 502.2	___EPA 552.1
___EPA 524.3	___EPA 552.2
___EPA 551.1	___EPA552.3
	___SM 6251 B

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C. TTHM Results

Site ID[1]	12-month period	Data Qualifies (yes/no)	Data Type	TTHM (mg/L)						LRAA[2]
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							

[1] Verify that site IDs match the site IDs on your distribution system schematic.
Attach additional sheets as needed for previously collected compliance and operational monitoring results.
[2] LRAA = Locational Running Annual Average

D. HAA5 Results

Site ID[1]	12-month period	Data Qualifies (yes/no)	Data Type	HAA5 (mg/L)						LRAA[2]
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							
			Sample Date							
			Sample Result							

[1] Verify that site IDs match the site IDs on your distribution system schematic.
Attach additional sheets as needed for previously collected compliance and operational monitoring results.
[2] LRAA = Locational Running Annual Average

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V. CERTIFICATION OF DATA*

I hereby certify that:

- The reported monitoring results include all compliance and non-compliance results generated during the time period beginning with the first reported result and ending with the most recent Stage 1 DBPR results.
- The samples are representative of the entire distribution system.
- Treatment and the distribution system have not changed significantly since the samples were collected.

Signature: _____ Date: _____

VI. PROPOSED SSS MONITORING SCHEDULE*

(Skip if you are submitting your IDSE Report at the same time as your plan)

SSS Site ID (from map)[1]	Projected Sampling Date (date or week)[2]					
	period 1	period 2	period 3	period 4	period 5	period 6

[1] Verify that site IDs match IDs on your distribution system schematic (See Section VII of this form). Attach additional copies of this sheet if necessary.

[2] period = monitoring period. Can list exact date or week (e.g., week of 7/9/07)

VII. DISTRIBUTION SYSTEM SCHEMATIC*

Attach a schematic of your distribution system.

Distribution system schematics are not confidential and should not contain information that poses a ***security risk*** to your system. ADEQ recommends that you use one of two options:

Option 1: Distribution system schematic with no landmarks or addresses indicated. Show locations of sources, entry points, storage facilities, operational monitoring locations, and Stage 1 compliance monitoring locations (required). Also include pressure zone boundaries and locations of pump stations. Provide map scale.

Option 2: City map without locations of pipes indicated. Show locations of sources, entry points, storage facilities, operational monitoring locations, and Stage 1 compliance monitoring locations (required). Also include boundaries of the distribution system, pressure zone boundaries and locations of pump stations. Provide map scale.

VIII. ATTACHMENTS

___Additional sheets for explaining how you selected the peak historical month (Section III).

___Additional sheets for previously collected monitoring results (Section IV).

___Additional sheets for proposed monitoring dates (Section VI).

___Distribution system schematic* (Section VII).

Total number of pages in your SSS plan: _____

Note: Fields with an asterisk (*) are required by the Stage 2 DBPR.

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Please submit SSS Plan Using Existing Monitoring Results to:

Arizona Department of Environmental Quality
Attn: Starr Abounader
Drinking Water Monitoring and Protection Unit, Mail Code 5415B-2
1110 West Washington Street
Phoenix, AZ 85007

If your public water system is in Maricopa County, you must <u>also</u> submit your SSS Plan to:

Maricopa County Environmental Services Department
Attn: John Kolman
Drinking Water Program
1001 North Central Avenue, Suite 250
Phoenix, AZ 85004

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INSTRUCTIONS FOR COMPLETING THE FORM

I. General Information

I.A. PWS ID – Enter your public water system identification number here.

PWS name – Enter the name of your system here.

PWS Address – Enter the primary mailing address for you water system here.

Population served – Enter the number of people served by your PWS. This is your retail population served, not including the population served by consecutive systems that purchase water from you.

Source Water Type – Put a check mark to identify whether your system is a subpart H (surface water/ GUDI) system or a groundwater system. If you use any surface water or GUDI as a source, put a check mark next to surface/GUDI.

System Type – Put a check mark to identify whether your system is a community water system (CWS) or nontransient noncommunity water system (NTNCWS).

Buying/Selling Relationships – Put a check mark to identify whether your system is a wholesale system, consecutive system, or neither. If you are both a consecutive and wholesale system (e.g., you buy and sell water), check both.

I.B. Date Submitted – Enter either the date that you are submitting the form electronically, putting it in the mailbox, or dropping it off with the express delivery service. Be sure to submit your SSS plan before the deadline.

I.C. Residual Disinfectant Type – Put a check mark to identify the type of disinfectant you most often use **to maintain a residual in your distribution system** (not necessarily the same disinfectant used for primary disinfection at the treatment plant). If you use chloramines but switch to free chlorine for a short time, you should still check chloramines only. If you use chloramines and chlorine regularly in your system (e.g., 4 months of free chlorine and 8 months of chloramines), check both chlorine and chloramines. If you maintain your residual with a disinfectant other than chlorine or chloramines (e.g., chlorine dioxide), you should place a check next to "Other" and enter the type of disinfectant you use in the blank next to "Other".

Number of Disinfected Sources – Enter the total number of sources that deliver disinfected water to your distribution system. If you connect to a single wholesale system at a number of locations in your distribution system, consider this one purchased source. Multiple wells that are disinfected at a common treatment plant should also be considered one source. Do not count wells that are not disinfected or are disinfected by UV only.

I.D. Contact Person – Enter the contact information of the person who is submitting the form. This should be the person who will be available to answer questions from state reviewers.

II. SSS Requirements

II.A. Minimum Number of Monitoring Locations – Refer to the ***System Specific Study Requirements – Attachment*** sheet in Chapter 2 of the IDSE Guidance Manual (page 2-29). Copy the numbers from the "SSS Existing Data – Minimum Sample Requirements" table for the number of monitoring locations that corresponds to your source type and the population served by your system.

II.B. Minimum Number of Required Samples – Refer to the ***System Specific Study Requirements – Attachment*** sheet in Chapter 2 of the IDSE Guidance Manual (page 2-29). Copy the numbers from the "SSS Existing Data – Minimum Sample Requirements" table for the number of TTHM and HAA5 samples that corresponds to your source type and the population served by you system.

II.C. IDSE Schedule – Enter the schedule for your system based on the letter sent to you from ADEQ. You can also refer to Exhibit 2.1 of the IDSE Guidance Manual (page 2-2) to determine your IDSE schedule number.

III. Peak Historical Month

III.A. Peak Historical Month – Enter the month that you determined to be your peak historical month for TTHM, HAA5 or warmest water temperature for your existing monitoring results.

III.B. If Multiple Sources, Source Used to Determine Peak Historical Month – If your system has only one source, write "N/A" here. If you have more than one source, write the name of the source you used as the basis for determining peak historical month. For example, if a system has one surface water, one ground water, and one purchased ground water source, it is likely that they relied heavily on data from the surface water source to select their peak historical month. This system would write "surface water source" in the blank space provided.

III.C. Peak Historical Month Based On – Put a check mark to identify whether your system used TTHM, HAA5, or warmest water temperature to determine the peak historical month. If more than one were used, check as many as necessary. If you used data other than TTHM, HAA5 and temperature data to select your peak historical month (e.g., you used TOC data and/or water age data), describe how you used additional data in the space provided.

IV. Previously Collected Monitoring Results

IV.A. Where were your TTHM and HAA5 samples analyzed? – Put a check mark to identify whether your system analyzed TTHM and HAA5 samples in an in-house laboratory or sent the samples to a certified laboratory for analysis.

If you analyzed your TTHM and HAA5 samples in an in-house laboratory, check either "Yes" or "No" to identify whether your laboratory is certified. If you sent your TTHM and HAA5 samples to a certified laboratory, enter the name of the laboratory in the blank. Also enter the certified laboratory number. If you used more than one laboratory (e.g., if you used different laboratories for operational and compliance samples), list both laboratories, or check "in-house" and list the name of the laboratory if applicable.

IV.B. What method(s) was used to analyze your TTHM and HAA5 samples? – Put a check mark to indicate the analytical method used to measure TTHM and HAA5. If more than one method was used (e.g., if you used different methods for operational and compliance samples), check more than one method. If you do not know what method was used, contact your laboratory.

IV.C. TTHM Results – Enter the TTHM results for each monitoring site for each monitoring period in which you collected data. Attach additional copies of this page if needed. Alternatively, you can use your own format and submit all monitoring results in an attachment. Guidelines for using the data tables in this section are provided below.

- **If you have multiple years of data at a monitoring location**: Select a repeating 12-month period for your data analysis. You may choose the calendar year, fiscal year, or other 12-month period. While you can select any 12-month period, you must include one sample for the peak historical month for every 12 months of qualifying data submitted. List each 12-month period in a separate row and indicate the 12-month period during which the data were collected. List multiple years of data for each monitoring location before continuing to the next monitoring location.

- **If you have data from one 12-month period at a monitoring location**: Use the 12-month period for which you have collected data, even if you used a different time period for other monitoring locations.

Enter the site ID for each location, and note which site IDs are Stage 1 compliance locations. If your locations were monitored at different time intervals (e.g., twice/year vs. quarterly), consider organizing your data such that data from your peak historical month lines up vertically. For each sample result, enter the date on which sampling was conducted.

In the column marked "Data Qualifies (yes/no)," indicate whether the data in the row are qualifying data. To be considered qualifying data, the samples must be analyzed by a certified laboratory using an approved method, and each location must be sampled during the peak historical month identified in

III.A. for each 12-month period of data submitted. See Section 5.1.1 of the IDSE Guidance Manual for more information.

Calculate the LRAA for each 12-month period of qualifying data submitted and enter it in the last column in the table. If you did not monitor on a regular basis, compute quarterly averages first, then use these values to calculate you LRAA. If you took a sample once during the peak historical month, then your LRAA is the single result from your peak historical month.

Appendix E provides an example of how you can present your data.

You must include all Stage 1 DBPR compliance results and operational results generated during the time period beginning with the first result reported for the SSS and ending with the most recent Stage 1 DBPR results.

IV.D. HAA5 Results – Enter the HAA5 results for each monitoring site for each monitoring period in which you collected data. For each sample result, enter the date on which sampling was conducted. Attach additional copies of this page if needed. Alternatively, you can use your own format and submit all monitoring results in an attachment.

Use the same 12-month periods you used to report TTHM data under IV.C. Refer to IV.C. for suggestions on how to organize and report you data.

You must include all Stage 1 DBPR compliance results and operational results generated during the time period beginning with the first result reported for the SSS and ending with the most recent Stage 1 DBPR results.

V. Certification of Data

Carefully read the criteria listed in this section and review your system data to verify that each statement is true. If all statements are true, sign your name and enter the date in the spaces provided.

VI. Proposed SSS Monitoring Schedule *(Skip this section if you are submitting your IDSE report at the same time as your SSS plan. Complete it only if you plan to conduct monitoring during the SSS period)*

Enter the ID for each monitoring site in the table (verify that these match the IDs you enter on your schematic), and enter your proposed sampling schedule. The entry can be a specific date or week and can be in a number of different formats. For example:

- 7/9/07
- 2nd week in Nov ‘07
- Week of 7/9/07

Be sure to include dates for Stage 1 DBPR monitoring to be conducted during the SSS period. Remember that at least one monitoring period must be during the peak historical month identified in Section III.A. for each 12 months of qualifying data. Attach additional sheets if needed.

VII. Distribution System Schematic

Attach a distribution system schematic to your SSS plan. Your schematic must include the locations of entry points, sources, storage facilities, Stage 1 compliance monitoring sites, and monitoring sites for your existing results.

SSS plans are not considered confidential business information (CBI) and are subject to the Freedom of Information Act (FOIA). ***Therefore, your distribution system schematic should not contain information that poses a security risk to your system.*** ADEQ suggests that you consider one of the following options for submitting distribution system schematics:

Option 1: Distribution system schematic with no landmarks or addresses indicated. Show locations of sources, entry points, storage facilities, Stage 1 compliance monitoring locations, and monitoring sites for your existing results (required). Also include pressure zone boundaries and locations of pump stations. Provide map scale.

Option 2: City map without locations of pipes indicated. Show locations of sources, entry points, storage facilities, Stage 1 compliance monitoring locations, and monitoring sites for your existing results (required). Also include boundaries of the distribution system, pressure zone boundaries and locations of pump stations. Provide map scale.

Schematics should be as clear and easy to read as possible. They should typically be submitted on a scale of between 1:4,000 and 1:8,000; however, larger-scale drawings are acceptable as long as systems components can still be clearly shown. All sizes from 8 ½ inches x 11 inches to larger, plan-sized sheets are acceptable. If electronic versions are submitted, use one of the following file types:

- Adobe PDF file (*.pdf)
- Microsoft Word (*.doc)
- Image file (*.gif, *.bmp, *.jpg, *jpeg)

VIII. Attachments

Put a check mark next to any attachments that you have included in your report. A distribution system Schematic is required. Refer to Section VII for details.

Enter the total number of pages in your SSS plan (including attachments) in the blank space at the bottom of this section. This will allow ADEQ to ensure that all pages were received.